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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/640,230	08/16/2000	Peter V. Boesen	P03999US2	3395
22885 7590 02/22/2007 MCKEE, VOORHEES & SEASE, P.L.C. 801 GRAND AVENUE SUITE 3200 DES MOINES, IA 50309-2721			EXAMINER YUN, EUGENE	
			ART UNIT 2618	PAPER NUMBER
SHORTENED STATUTORY PERIOD OF RESPONSE			MAIL DATE	
3 MONTHS			02/22/2007	
			DELIVERY MODE PAPER	

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

09/640,230

Applicant(s)

BOESEN, PETER V.

Examiner

Eugene Yun

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 November 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 17-28 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 17-28 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 16 August 2000 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 17, 18, 20-24 and 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ono (US 4,334,315) in view of Soli et al. (US 6,563,931).

Referring to Claim 17, Ono teaches a method of transmitting voice sound information comprising:

Sensing the voice sound vibrations of a user through an earpiece (fig. 8) having a bone conduction sensor adapted to convert voice sound vibrations to electrical signals (see col. 3, lines 18-22), and a processor operatively connected to the bone conduction sensor, a first transmitter, and a first receiver (see col. 3, lines 18-24);

Transmitting the voice sound information from the first transmitter to a second receiver R (fig. 9) disposed within a housing (see col. 3, lines 56-57 noting that the second receiver is disclosed in the wireless device 4 in fig. 11 or R in fig. 9) and operatively connected to an external connector of a host device 4 (fig. 11);

Receiving the voice sound information at the second receiver (see col. 3, lines 15-17); and

Communicating the voice sound information from the second receiver to the host device (see col. 3, lines 15-17).

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Ono does not teach processing the electrical signals using the processor to remove ambient and environmental interference and to package the electrical signals for transmission. Soli teaches processing the electrical signals using the processor to remove ambient and environmental interference and to package the electrical signals for transmission (see col. 6, line 66 to col. 7, lines 1-15). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the teachings of Soli to said apparatus of Ono in order to further improve the signal quality in a wireless earpiece.

Referring to Claim 18, Ono also teaches the earpiece not occluding the external auditory canal of the user (fig. 7).

Referring to Claim 20, Ono also teaches a speech processor (see 'V' in figs. 1, 2, and 4)

Referring to Claim 21, Ono teaches a voice sound transmitting system, comprising:

An earpiece (fig. 8) comprising a bone conduction sensor adapted to convert vibrations of voice sound information to electrical signals (see col. 3, lines 18-22), a processor operatively connected to the bone conduction sensor, a first transmitter operatively connected to the processor and a first receiver operatively connected to the processor (see col. 3, lines 18-24);

A connector associated with a housing, the connector for connecting a second receiver and a second transmitter disposed within a housing (see col. 3, lines 51-60)

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noting that the second receiver and second transmitter are disclosed in the wireless device 4 in fig. 11) to a host device (see col. 3, lines 15-17);

The second transmitter and the second receiver adapted for communication with the first receiver and the first transmitter of the earpiece (see col. 3, lines 15-17).

Ono does not teach the processor adapted for processing the electrical signals to remove ambient and environmental interference and to package for transmission. Soli teaches the processor adapted for processing the electrical signals to remove ambient and environmental interference and to package for transmission (see col. 6, line 66 to col. 7, lines 1-15). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the teachings of Soli to said apparatus of Ono in order to further improve the signal quality in a wireless earpiece.

Referring to Claim 22, Ono also teaches the host device as a cellular phone (see col. 2, lines 18-20).

Referring to Claim 23, Ono also teaches the host device as a computer (see col. 2, lines 18-20).

Referring to Claim 24, Ono also teaches the host device as a personal digital assistant (see col. 2, lines 18-20).

Referring to Claim 27, Ono also teaches the connector housed within a cradle (see fig. 11).

3. Claims 19, 25, 26, and 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ono and Soli and further in view of Puthuff et al. (US 6,181,801).

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Referring to Claim 25, the combination of Soli and Ono does not teach a headphone-jack type connector. Puthuff teaches a headphone-jack type connector (see col. 6, lines 19-21). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the teachings of Puthuff to the modified apparatus of Ono and Soli in order to expand the different methods a communication earpiece can be used.

Referring to Claims 19 and 28, the combination of Soli and Ono does not teach an air conduction sensor electrically connected to the processor. Puthuff teaches an air conduction sensor electrically connected to the processor (see ABSTRACT and fig. 1). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the teachings of Puthuff to the modified apparatus of Ono and Soli in order to expand the different methods a communication earpiece can be used.

Referring to Claim 26, Puthuff also teaches the connector as a serial connector (see fig. 1 where most computers are equipped with serial connectors).

Response to Arguments

4. Applicant's arguments with respect to claims 17-28 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

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5. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).


A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Eugene Yun whose telephone number is (571) 272-7860. The examiner can normally be reached on 9:00am-6:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Matthew D. Anderson can be reached on (571)272-4177. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.


Eugene Yun
Examiner
Art Unit 2618

EY


MATTHEW ANDERSON
SUPERVISORY PATENT EXAMINER